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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

SEP 17 2014

Richard Lemoine
Director of Environmental and Emergency Management
University of Massachusetts-Lowell
University Crossing
220 Pawtucket Street, Suite 140
Lowell, Massachusetts 01854

Re: PCB Decontamination and Disposal Approval under 40 CFR § 761.61(c) and
§ 761.79(h)
McGauvran Hall
University of Massachusetts, Lowell, Massachusetts

Dear Mr. Lemoine:

This is in response to the University of Massachusetts (UMass) Notification¹ for approval of a proposed plan to address PCB contamination at the building known as McGauvran Hall (the Site) located at 71 Wilder Street on the Southern Campus of the University of Massachusetts-Lowell, in Lowell, Massachusetts. The Site contains PCB-contaminated materials that exceed the allowable PCB levels under 40 CFR § 761.20(a) and § 761.62. Specifically, PCBs have been found in caulk, and in the adjacent building substrates (e.g., concrete and brick).

UMass has requested an approval under 40 CFR § 761.61(c) that includes the following activities:

- Remove all PCB caulk, window/door frames and components scheduled for removal, 4 inches of brick façade from the brick panels that will be removed and an entire row of the third floor tectum panels in direct contact with caulk, and dispose of as *PCB bulk product waste* in accordance with 40 CFR § 761.62

¹ The notification was prepared by Woodard & Curran on behalf of UMass to satisfy the requirements under 40 CFR § 761.61(c) and § 761.79(h). Information was submitted dated May 30, 2014 (PCB Remediation Plan), August 12, 2014 (Response to EPA Comments), August 29, 2014 (Contractor Work Plan dated August 12, 2014), September 5, 2014 (Response to EPA questions concerning tectum); September 10, 2014 (email response to EPA question concerning ductwork sealant classification); and September 10, 2014 (email Notification modification to include additional tectum panels). These submittals shall be referred to as the "Notification".

- Decontaminate *non-porous surfaces* (i.e., metal frames from windows/doors and second floor tectum panels) that will remain in place
- Conduct additional sampling of the *porous surfaces* (i.e., brick façade adjacent to windows and masonry joints, and structural concrete adjacent to windows and masonry joints) in accordance with the Notification to confirm the limit of encapsulation
- Encapsulate *porous surfaces* (i.e., minimum 1 inch of structural concrete and brick associated with windows/doors that will remain, and minimum ½ inch of brick and concrete along masonry joints) with a liquid barrier system
- Conduct verification sampling for *porous surfaces* (i.e., brick façade panels and third floor exterior tectum panels) and *non-porous surfaces* (i.e., metal frames that will remain) to confirm that the PCB cleanup standards of less than (<) 1 part per million (ppm) and < 10 µg/100 cm² have been met

UMass has determined that window glazing, interior masonry caulk, and duct work sealant, which have PCB concentrations at < 50 ppm meet the criteria for an *Excluded PCB Product* under § 761.3. Under the PCB regulations, *Excluded PCB Products* are authorized for use and thus there is no requirement for decontamination of surfaces that are in contact with the < 50 ppm products. UMass is proposing to remove the glazing as a component of the window unit, the caulk, and the duct sealant for disposal as *PCB bulk product waste*.

With the exception of the proposed verification sampling frequency for decontaminated *porous* and *non-porous surfaces*, the Notification meets the requirements and standards established under 40 CFR §§ 761.61(a), 761.62, and 761.79(h) for cleanup and disposal of PCB waste.

With respect to the verification sampling frequency, based on the results of the PCB sampling to-date and the proposed cleanup and disposal approach, EPA has determined that the sampling plan and verification sampling frequency are adequate to confirm that PCB cleanup standard has been met. EPA finds that the alternative verification sampling proposed by UMass will not create an unreasonable risk to public health or the environment when conducted in accordance with the Notification and this Approval. EPA may approve the sampling under § 761.61(c).

Based on the EPA's review, the information provided in the Notification meets the requirements under § 761.62(b) and § 761.79(h) for abatement of PCB caulk and adjacent *porous surfaces* (i.e., brick panels that will be removed and tectum ceiling panels) and § 761.61(c) for encapsulation of the PCB-contaminated *porous surfaces* that will remain. EPA finds that the proposed encapsulation of PCB-contaminated *porous surfaces* should effectively prevent direct exposure of these PCB-contaminated *porous surfaces* to building users provided the physical barriers are maintained. As such, EPA may approve the encapsulation under § 761.61(c).

UMass may proceed with its project in accordance with 40 CFR § 761.61(c); § 761.62(a); § 761.79(h); its Notification; and, this Approval, subject to the conditions of Attachment 1. Under this Approval, EPA is reserving its right to require additional investigation or mitigation measures should EPA determine that the encapsulation is not effective in eliminating exposure to PCBs.

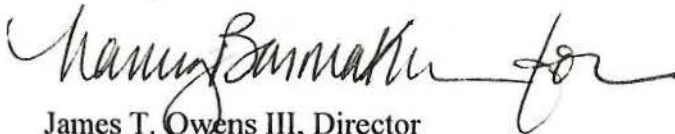
Please note that UMass will be required to record a notation on the deed as required under § 761.61(a)(8) since PCBs at greater than (>) 1 ppm will remain on the Site.

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall not consider this project complete until it has received all submittals required under this Approval. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

A handwritten signature in cursive script, appearing to read "James T. Owens III", followed by a flourish.

James T. Owens III, Director
Office of Site Remediation & Restoration

cc Jeffrey Hamel, Woodard & Curran
MassDEP – Northeast Region
File

Attachment 1 – PCB Approval Conditions

ATTACHMENT 1: PCB APPROVAL CONDITIONS
McGAUVRAN HALL (the Site)
UNIVERSITY OF MASSACHUSETTS
LOWELL, MASSACHUSETTS

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and the *PCB remediation waste* located at the Site and identified in the Notification.
2. University of Massachusetts (UMass) shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.
3. In the event that the cleanup plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.
4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.
5. UMass must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, UMass shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.
6. UMass is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time UMass has or receives information indicating that UMass or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.
7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by UMass are authorized to conduct the activities set forth in the Notification. UMass is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.
8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release UMass from compliance with any applicable requirements of federal, state or local law; or 3) release UMass from liability for, or otherwise resolve any violations of federal, state or local law.

9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from UMass of its acceptance of the conditions of this Approval within 10 business days of receipt.
11. UMass shall submit the following information for EPA review and/or approval:
 - a. A certification signed by its selected abatement/demolition contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval; and,
 - b. A certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

DECONTAMINATION AND DISPOSAL CONDITIONS

12. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.
13. The decontamination standard for *porous surfaces* (i.e., brick panels being removed and third floor tectum panels) shall be less than or equal to (\leq) 1 part per million (ppm) PCBs.
 - a. All post-cleanup verification sampling for *porous surfaces* shall be performed on a bulk basis (i.e., mg/kg) and reported on a dry weight analysis. Verification sampling for *porous surfaces* shall be conducted in accordance with the EPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*, at a maximum depth interval of 0.5 inches, and in accordance with the frequency specified in the Notification.

- b. Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction/analytical method(s) is validated according to Subpart Q.
 - c. In the event that any verification sample is greater than ($>$) 1 ppm, additional building material shall be removed and additional verification samples shall be collected to confirm that the \leq 1 ppm PCB cleanup standard has been met.
14. The decontamination standard for *non-porous surfaces* (i.e., metal frames) shall \leq 10 $\mu\text{g}/100\text{ cm}^2$ PCBs.
- a. Post-decontamination verification sampling of *non-porous surfaces* shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e., $\mu\text{g}/100\text{ cm}^2$) at the following frequencies:
 - i) Second floor tectum panel frames- 1 sample per 20 linear feet (lf) for a minimum of 3 samples
 - ii) Stairwell window frames- 1 sample per 45 lf, a minimum of 2 samples per interior and exterior of each window, for a total of 12 samples
 - iii) Second and third floor doors- 1 sample per 50 lf, a minimum of 1 sample per interior and exterior of each door, for a total of 4 samples.
 - b. In the event any decontaminated *non-porous surface* has a PCB concentration at $> 10\text{ }\mu\text{g}/100\text{ cm}^2$ PCBs, UMass may conduct additional decontamination to achieve the required decontamination standard or UMass must store and dispose of these wastes in accordance with 40 CFR Part 761.
 - c. Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction/analytical method(s) is validated according to Subpart Q.
15. Following encapsulation of PCB-contaminated *porous surfaces* (i.e., concrete and remaining brick façade) post-encapsulation sampling shall be conducted to determine the effectiveness of the encapsulation.
- a. Wipe sampling of encapsulated surfaces shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e., $\mu\text{g}/100\text{ cm}^2$). Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction or analytical method(s) is validated according to Subpart Q.

- b. In the event that any wipe sample PCB concentration is $> 1 \mu\text{g}/100 \text{ cm}^2$ and cannot be achieved with application of additional encapsulant, UMass shall contact EPA for further discussion and direction on alternatives.
16. PCB waste (at any concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61 or § 761.62, unless otherwise specified below.
- a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g)(6).
 - b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).
 - c. PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60.

DEED RESTRICTION AND USE CONDITIONS

17. The Site owner shall notify the EPA of the sale, lease or grant of any real estate interest in the Site, in writing, no later than sixty (60) days prior to such action. This notification shall include the name, address, and telephone number of the new owner(s). In the event that the Site owner sells, leases, or grants any real estate interest affecting a portion of the Site, the Site Owner shall continue to be bound by all the terms and conditions of this Approval, unless EPA allocates some or all of this Approval's responsibilities to the new owner(s), lessee or grantee. The notification procedures are as follows:
- a. The new owner(s), lessee or grantee must request, in writing, that the EPA transfer some or all obligations and responsibilities under the Approval to the new owner(s), lessee or grantee;
 - b. The EPA reviews the request, and determines whether to allocate some or all of the obligations and responsibilities under the Approval to the new owner(s), lessee, or grantee; and,

- c. The new owner(s), lessee or grantee provides written notification to the EPA of its acceptance of and intention to comply with the terms and conditions of the Approval or new approval, should EPA deem a new approval is necessary. The Approval or new approval may be withdrawn if the EPA does not receive written notification from the new owner(s), lessee or grantee of its acceptance of, and intention to comply with, the terms and conditions of the Approval or new approval within thirty (30) days of its receipt of the Approval or the new approval. Under such circumstances, all terms and conditions of this Approval will continue to be binding on the Site owner.
18. In the event that the sale, lease or grant of a real estate interest in the Site will involve or result in a change in the use of the Site, EPA may revoke, suspend, and/or modify this Approval or the new approval if it finds, due to the change in use, that this risk-based cleanup and disposal action will not be protective of health or the environment. The new owner or grantee shall record any amendment to the deed restriction, resulting from any approved modification(s), within sixty (60) days of such change(s).
19. In any sale, lease or grant of a real estate interest in the Site, the Site owner shall retain sufficient access rights to enable it to continue to meet its obligations under this Approval, except as provided above.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

20. Within 60 days of completion of the work authorized under this Approval, UMass shall submit for EPA's review and approval, a detailed monitoring and maintenance implementation plan (MMIP) for the surface barriers. UMass shall incorporate any changes to the MMIP required by EPA.
- a. The MMIP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria; and, reporting requirements, as applicable.
 - b. The MMIP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including teachers, parents, student, other on-site workers, and interested stakeholders.
 - c. The MMIP also shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the barriers encapsulating the PCB-contaminated surfaces.

- d. UMass shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMIP is necessary in order to monitor and/or evaluate the long-term effectiveness of the barriers.
 - e. Activities required under the MMIP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.
21. UMass shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by UMass to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.
22. Any modification(s) in the plan, specifications, or information submitted by UMass, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. UMass shall inform the EPA of any modification, in writing, at least ten (10) days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification.
23. If such modification involves a change in the use of the Site which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based cleanup and disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from UMass to make a determination regarding potential risk.
24. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

RECORDKEEPING AND REPORTING CONDITIONS

25. UMass shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the cleanup and disposal and the analytical sampling shall be established and maintained by UMass in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.

26. As required under Condition 20 of this Approval, UMass shall submit the results of the long-term monitoring and maintenance activities to EPA as specified in the final MMIP to be approved by EPA.
27. UMass shall submit a final report to the EPA within 90 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of and the size of the PCB cleanup area(s); copies of manifests and bills of lading; and copies of certificates of disposal or similar certifications issued by the disposer. The Report shall also include a copy of the recorded deed restriction and a certification signed by a UMass official verifying that the authorized activities have been implemented in accordance with this Approval and the Notification.
28. Required submittals shall be mailed to:

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100 – (OSRR07-2)
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527
29. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

END OF ATTACHMENT 1